

Optimal Traffic Allocation for Multi-Stream Aggregation in Heterogeneous Networks - DTU Orbit (08/11/2017)

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This paper investigates an optimal traffic rate allocation method for multi-stream aggregation over heterogeneous networks that deals with effective integration of two or more heterogeneous links for improved data throughput and enhanced quality of experience. The heterogeneity and the dynamic nature of radio access networks are considered as important factors for performance improvement by multi-stream aggregation. Therefore, in our model, the networks are represented by different queueing systems in order to indicate networks with opposite quality of service provisioning, capacity and delay variations. Furthermore, services with different traffic characteristics in terms of quality of service requirements are considered. The simulation results show the advantages of our scheme with respect to efficient increase in data rate and delay performance compared to traditional schemes.

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